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United States General Accounting Office
Washington, DC 20548

September 26, 2001

The Honorable John D. Dingell
Ranking Minority Member
Committee on Energy and Commerce
House of Representatives

Dear Mr. Dingell:

We received your letter, dated September 5, 2001, requesting the General Accounting Office to conduct a review of steps taken by the SEC and securities industry self-regulatory organizations to respond to recommendations in our July 25, 2001, report entitled "Information Systems: Opportunities Exit to Strengthen SEC's Oversight of Capacity and Security".

GAO has accepted your request as work that is within the scope of our authority. In reviewing the resource requirements to fully respond to your request, however, and considering the backlog of requests we have from congressional committees, it is difficult to specify at this time when GAO can start this work. We have assigned your request to Mr. Tom McCool, Managing Director for Financial Markets and Community Investment. Mr. McCool, or a member of his team will contact your office to discuss options to help meet your needs.

If you have any questions, please contact Mr. McCool on (202) 512-8678 or me on (202) 512-4507.

Sincerely yours,

Doris E.L. Cannon

Doris E.L. Cannon
Assistant Director
Congressional Relations

From: Richard J Hillman [HillmanR@gao.gov]
Sent: Friday, October 05, 2001 5:12 PM
To: Washington, Consuela
Cc: Cody J Goebel; Cecile O Trop
Subject: Possible GAO Assignments

**Prospective Objectives of Work to Assess Securities Markets
Disaster Mitigation Efforts**

The following represent separate objectives of work that could be done as part of one or more reviews:

- I) Mitigation Strategies for Physical Threats: to assess major securities markets' readiness to prevent and minimize damage from physical attacks, natural disasters, etc.
 - A) Organizations focused on: NYSE, Nasdaq, Amex
 - B) Methodology to assess physical security
 - i) Review markets' policies and procedures for assessing vulnerabilities and mitigating them
 - ii) Review internal and external reviews done of markets physical security procedures
- II) Mitigation Strategies for Electronic Threats: to assess major securities markets' readiness to prevent and minimize damage from hackers or cyber terrorism
 - A) Organizations focused on: NYSE, Nasdaq
 - B) Methodology to assess electronic security
 - i) Review markets' policies and procedures for assessing vulnerabilities and mitigating them
 - ii) Review internal and external reviews done of markets' electronic security procedures
 - iii) Conduct testing of market systems using GAO lab personnel
- III) Markets' Business Continuity and Backup Strategies: to assess major securities plans for resuming operations after disruptions from physical or electronic disasters
 - A) Organizations focused on: NYSE, Nasdaq (could eventually review options exchanges, futures markets, clearing organizations, etc.)
 - B) Methodology for assessing business continuity and contingency planning procedures
 - i) Review markets' policies and procedures for resuming operations after any type of physical or electronic disruption or natural disaster
 - ii) Review markets' policies and procedures for backup trading facilities
 - (1) Capabilities and issues for exchange specialists

- (2) Capabilities and issues for member firms
- (3) Capabilities and issues for Nasdaq market makers
- (4) Capabilities and issues for regional exchanges



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Committee on Financial Services

Michael G. Oxley, Chairman

For Immediate Release:

Thursday, October 11, 2001

Contact: Peggy Peterson at 226-0471

Oxley Requests Study of Financial Market's Recovery

Chairman of the House Financial Services Committee Michael G. Oxley (OH) called on the General Accounting Office (GAO) today to examine the affects of the recent terrorist attacks on the nation's financial institutions and markets.

Text of the letter follows:

The Honorable David M. Walker
Comptroller General
U.S. General Accounting Office
441 G Street, NW
Washington, DC 20548

Dear Mr. Walker:

The attack on the World Trade Center of September 11th had devastating human and physical consequences for our financial markets and institutions. The World Trade Center and surrounding buildings housed hundreds of investment banks, commercial banks, broker-dealers, and investment advisors and managers, as well as securities, futures, and options exchanges. It is a tribute to the strength and resiliency of our financial institutions and markets that they have been able to return to operation so quickly, in spite of the horrendous loss of life and physical damage to lower Manhattan. At the same time, we believe there is much that can be learned from the efforts of our financial institutions to recover from the effects of the attack.

The ability of the financial institutions and markets affected by the attack to resume operations appears to have varied greatly. The Federal Reserve System was able to keep the payment system open throughout the crisis, in spite of the severe physical and operational challenges faced by the Federal Reserve Bank of New York and commercial banks located in lower Manhattan. The over-the-counter bond markets were able to reopen within 48 hours of the attack, but only on the basis of significantly delayed settlement in some of those markets. Reopening of the equity markets, both electronic and floor-traded, was delayed

until the Monday following the attack, and these markets were able to reopen with regular settlement. The futures exchanges located in the World Trade Center or the surrounding area also experienced significant delays prior to the resumption of partial or full trading.

Some institutions and market participants with significant operations in or near the World Trade Center were able to transition smoothly to back-up facilities at other locations. Others, however, experienced serious difficulties, in some cases because back-up facilities located near the World Trade Center were disabled. In addition, the destruction of computer and communications systems posed a challenge to the re-establishment of communications among many market participants, in some cases severely hampering the movement of payments and outstanding market settlements.

The speed with which the financial exchanges were able to reopen varied, as well. While Nasdaq, the major electronic communications networks, and regional exchanges outside of New York indicated that they were prepared to reopen the week of the attack, the reopenings of the American Stock Exchange and the New York Stock Exchange were hampered by lack of access to their trading floors and, in the case of the American Stock Exchange, damage to its trading floor. These obstacles delayed the reopening of the equities markets for four business days, the longest hiatus in the operation of the U.S. equities markets since World War II. The American Stock Exchange was only able to commence operations when the equities markets opened on Monday, September 17th, by moving its equities trading operations to the floor of the NYSE and its options activities to the floor of the Philadelphia Stock Exchange. Some affected futures exchanges were able to reopen using electronic systems rather than trading floors, but others took longer to reopen, even where redundant trading facilities were available.

In order to fully understand the factors that affected the ability of our financial institutions to recover from the effects of the attack, we request that you monitor the recovery process and report to us on its implications for the U.S. financial markets and their participants. In particular, we would like you address the following issues:

1. Disaster planning - Evaluate the efficacy, success, and lapses in the disaster plans of financial institutions, self-regulatory organizations, ECNs, and financial regulators and provide recommendations on how these entities' disaster planning could be improved.
2. Computer systems - Evaluate the extent to which financial institutions affected by the attack had back-up computer systems available and were able to access and use those facilities. Evaluate the extent to which firms had both their primary and back-up facilities located in the vicinity of the World Trade Center, and the effect of this on the recovery of those firms when both systems were damaged or inaccessible.
3. Communications systems - Determine the extent to which the difficulties faced by some firms in restoring communications resulted from problems with their own systems or damage to phone lines and communication systems outside of their control. In this regard, evaluate (a) the extent to which the disaster plans described under item 1 above relied on or assumed undisrupted services of telecommunications providers; (b) the effect of telecommunications failures on the financial markets and their participants; (c) the efficacy, success, and lapses in the disaster plans of telecommunications providers themselves, to the extent that such plans had an effect on the recovery efforts of financial institutions and the financial markets; and (d) the utility and feasibility of creating a telecommunications back-up system dedicated to the financial markets to avert a similar disruption to the financial markets in the future.
4. Physical access - Determine the extent to which lack of physical access to the trading

floors of the exchanges and/or damage to such floors was a factor in delaying reopening of the equity and futures markets after the attack. To the extent that lack of access to trading floors was a significant factor, evaluate the dependence of the U.S. equities markets on any particular market or markets. In this regard, evaluate the feasibility of opening the equities and futures markets, notwithstanding the inability of any particular market or exchange to open, by relying on alternative markets, facilities, and systems, including ECNs and regional exchanges. Please include in this analysis an examination of the implications to the markets and investors of any cooperative agreements that different markets may have entered into in response to the September 11 attack. In addition, evaluate the utility, costs and benefits of requiring redundant physical trading facilities or other mechanisms, such as alternative electronic trading systems to speed reopening following a disaster.

5. Payment systems - Analyze the factors that enabled the Federal Reserve to maintain the availability of its payment facilities and the factors that other financial institutions might look to improve their own disaster planning.

Please provide us with your preliminary findings no later than December 10, 2001.

Thank you for your cooperation in this matter.

Yours Truly,

(SIGNED)
Michael Oxley
Chairman
Committee on Financial Services

(SIGNED)
John J. LaFalce
Ranking Member
Committee on Financial Services

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U.S. Securities and Exchange Commission



Speech by SEC Chairman: Remarks at the Securities Industry Association Annual Meeting

by

Chairman Harvey L. Pitt

U.S. Securities & Exchange Commission

**Boca Raton, Florida
November 9, 2001**

These remarks reflect solely the personal views of Mr. Pitt, and do not necessarily reflect the views of the Commission, the individual members of the Commission, or its Staff.

I am pleased and honored to be with you this morning. The events surrounding this meeting are both a cause for grieving and a cause for giving thanks. The securities industry has been through an extraordinary series of events over the past two months. The terrorist attacks of September 11th inflicted irreparable losses of innocent lives. We mourn our lost friends, relatives and co-workers. Every life lost is irreplaceable; there are no insignificant people.

Those we lost leave gaping holes in our lives and in our communities. Those of us who were spared must carry on. We all should feel and reflect unabashed gratitude for the opportunity to live in our free society. In doing so, we honor the memory of those who no longer can. The terrorists win only if we stop living our lives and imprison ourselves in fear. I refuse to do that, and I know you do, too.

I am enormously grateful for the wonderful efforts of the securities industry, the leaders of our self-regulatory bodies, and my colleagues on the Commission and its Staff. Our experience immediately following September 11th evidenced the extraordinary power of cooperation and partnership between the public and private sectors. As a government agency, our job was to ensure that our markets once again were able to function properly so investors could exercise their freedom to buy or to sell, and so public companies could raise capital in the strongest, deepest, most liquid capital markets in the world. The Commission reached out to all sectors of the marketplace for ideas concerning the best way to ensure that our markets would reopen with the greatest amount of liquidity possible, consistent with the protection of investors and the national interest.

You answered our call, and with your help we crafted a series of emergency

measures, such as a temporary broadening of the issuer repurchase safe harbor, that served to create a more stable market environment.

In a remarkable demonstration of elevating the public interest over narrow parochial concerns, all of those with an interest in our markets came together, in partnership and, operating as one, ensured the successful reopening of our equity markets on September 17th. When the markets reopened, investors once again were able to rely upon the strength and soundness of our markets. Investors had the freedom to buy or sell. All market and investor protections were squarely in place. It was a day of record volume, without incident. The message sent around the world was simple, but poignant: our markets are the most resilient in the world, and they represent freedom and a way of life - things that terrorists can never destroy.

I marvel as well at the tremendous cooperation of those in the securities industry and our self-regulatory organizations in providing trading data and backup documentation to our Division of Enforcement and other U.S. and foreign authorities to help the FBI track down those responsible for the heinous attacks. Although any securities law violations are minor in relation to the atrocities perpetrated, we, along with other federal and foreign authorities, must canvass all possible evidence to see if we can identify the perpetrators.

These were not the events that I had expected would mark the beginning of my Chairmanship. But we don't get to choose the circumstances that prevail when we enter the game. Now that the more extreme dislocations of the crisis appear to have abated, I would like to take this opportunity to discuss three broad topics with you this morning - regulatory philosophy, some of the lessons we can learn from the events of September 11th and their aftermath, and the approach we anticipate taking toward issues of market structure. This is a lot to chew off in a short period of time, but I think you are entitled to know something about the philosophical approach of those who regulate your industry.

The securities industry is unique. For one thing, it is the lifeblood of our capitalist system, and the engine that drives our standard of living, corporate competition, and the delivery of all the products and services that make up our free economy. For another, Congress gave it the privilege of regulating itself, in the first instance. This is a rare public trust, bestowed on precious few industries. It is a trust to which this industry must constantly be devoted, and against which it will continuously be measured.

The SEC also is charged with public trust. Although the Commission has broad powers over the securities markets and the professionals who operate in them, we view our role as ensuring that the markets and market professionals act in furtherance of the interests of public investors, and in furtherance of the importance of capital raising. Public investors are the bedrock of our markets - and their interests are a critical touchstone for us when deciding whether regulatory action is necessary or desirable. So, too, is the efficiency of our markets as a means for promoting the ability of companies to raise capital for new ideas, products and services.

That was the way we approached September 11th, and the way we will look at many issues. There undoubtedly will be times when you may think we should step back, or aside, but we will not be comfortable doing so. As long as we maintain a steady dialogue, and foster trust and confidence in

one another, areas of disagreement will hopefully be minimized, and you will always understand why we did, or did not do, as you may have preferred. It isn't essential that we always agree, but it is essential that we always be agreeable toward one another.

In the aftermath of September 11th, there will surely be those who may seek to complain about things they think might have been done differently, or even better. I am not one of those people. I think everyone performed remarkably, and this industry and its self-regulators deserve enormous praise for the leadership and patriotism you reflected. But just because I do not seek to look back for the purpose of criticizing does not mean that we cannot or should not look forward, to examine lessons we may need to learn - should the unthinkable, or anything remotely like it, ever recur. In looking forward, we must of course look back; and, it seems to me that certain themes emerge, which I raise for your consideration.

- First, in the crisis, the industry showed its ability to put aside competitive interests and pull together to make the markets work. There was tremendous outpouring of practical support for those displaced by the disaster. The New York Stock Exchange opened a portion of its floor to accommodate trading in equities and exchange-traded funds by the Amex. The Philadelphia Stock Exchange permitted Amex options members to continue their livelihood in the Philadelphia Stock Exchange's trading crowds. Securities firms opened their doors to competing firms. Bank and service vendors voluntarily housed displaced members of the industry. By your actions, you showed the world that the world's strongest and most resilient markets are also the most compassionate.
- Second, we saw that communications are key. The self-regulatory organizations, and the SIA and Bond Market Association are to be congratulated for their untiring efforts to exchange information on market developments, and obtain regulatory input. These efforts were critical to coordinating a response to the September 11 calamity. Especially in a crisis, it is important that information flows widely and deeply.
- Third, the breadth and scope of business continuity planning must be expanded. Previously, business continuity planning may have focused on the loss of one building, or a temporary disruption to electrical energy; in the future it must anticipate the disruption of wider areas. It must consider not just operational risks to facilities and automation systems, but also disruption of physical access to premises, and even impediments to commuting. Business continuity planning must also include contacting and regrouping employees that may be scattered by sudden events.
- Fourth, wherever possible, business continuity planning should seek to avoid reliance on single points of failure in critical systems. Single points of failure can occur in ways that are unforeseen, and even odd. The lines of competing telecom providers may all lie side by side in old, obscure conduits. Advanced electronic trading systems may require air conditioning, which is run on city steam in older buildings. These risk exposures must be identified and planned around.
- Fifth, critical functions need backup capabilities with fail-over functionality allowing rapid recovery. For significant securities firms,

these backup facilities should encompass trading and institutional sales operations, as well as back office systems. September 11th teaches that these backup facilities should be geographically separate, with different staffs or the ability to shift staff from primary facilities. Backup records and code should also be kept current and maintained separate from the original records, where they can be easily, readily and seamlessly recoverable.

- Sixth, single points of failure also may arise from business concentrations reflecting economies of scale and specialization of functions. Where possible, of course, these are to be avoided or limited. If single points of failure cannot be avoided in the financial system because of costs or unacceptable efficiency losses, these operations must be robust and resilient throughout their critical elements. These critical elements include the operating systems themselves, other supporting systems, and the major participants in those systems. Connectivity between these elements also must be resilient.
- Seventh, for key financial systems that cannot be readily replaced, thought should be given to ensuring business continuity planning at comparable levels by all critical elements in the system. It is clearer than ever that a chain is only as strong as its weakest link.
- And finally, the Commission itself is applying lessons learned to record maintenance, coordination among staff in emergencies, and backup facilities. While we strived to coordinate with the industry through hot lines, and conference calls, we need to communicate better with and get input from all affected areas in the industry, including institutional money managers. We need to build upon our existing strong working relationships with other federal agencies, particularly those encompassed in the President's Working Group on Financial Markets, we also need to develop better ties with local authorities and utilities in key locations, to help them prioritize needs in the securities industry.

This discussion is necessarily abbreviated and general, in part because of the need for discretion in these perilous times, and in part because we are continuing to consider what additional lessons we, in partnership with the industry, should consider more fully. We welcome your input on what we could do better and how we can be of further assistance to you. We are fully committed to the principle that government is, and must be, a service industry.

Lastly, I thought I would use this opportunity not only to reflect on lessons learned, but also to look forward at some of the other challenges facing our securities markets. Some of you may have been hoping for a clear articulation of where I believe our markets are headed, or the path that we intend to clear to get us to optimal market structure. But none of us has a crystal ball, and I am not foolish enough to suggest that there are easy answers to these issues. Rather, I would like to share with you my vision, the overarching philosophy, if you will, that underlies my thinking concerning the array of market issues that we must face together.

As I have indicated, I am a passionate believer in the power of free markets. Our markets, and indeed our entire economic system, are the envy of the world because of the tremendous benefits of competition. It is the role of government to provide an environment in which innovation and

creativity are rewarded, competition can flourish, and where market participants can compete fiercely but fairly on a level playing field. Through these competitive markets, the investors we protect can take resources husbanded for retirement, illness, education or better living standards, and cause them to continue to grow, and new industries and technologies can evolve, making our lives more productive and more enjoyable.

I believe in a flexible regulatory framework that does not dictate a particular market structure, but rather allows for multiple competing market models, and fosters the kind of innovation and creativity that has been the lifeblood of our economic system. Yet government clearly has a role to play. We can ensure that all market participants operate in an environment in which certain fundamental principles apply. These are the principles that Congress set out for us because of a belief that they would benefit the markets, and our economy, as a whole - fair and orderly markets, transparency, best execution of orders, and investor protection. No one should doubt that these principles have served our markets and America's investors well.

There are many different means to achieve the same desired goals. In general, my preferred approach to any regulatory issue is one in which the government's participation is as limited as reasonably possible, while vigorously ensuring that the public interest is protected. Many in your industry have complained - and credibly so, I regret to say - that it takes too long for innovative products and ideas to receive clearance from our agency. I am painfully aware of those concerns, having been on the experiencing end of that dilemma when I represented market innovators.

If government is to perform its critical role, new ideas and technology must be confident of prompt and intelligent consideration, with government taking an active interest in facilitating new ideas, not evidencing fear or uncertainty, leading to institutional paralysis, in resolving the thorny regulatory problems that often arise when we are presented with new products, new technology and new markets. To be both prompt and intelligent, I believe the Commission must make greater use of technological expertise as well as economic analysis, including cost/benefit analyses, in our policymaking.

To do this, we are in the process of beefing up our economic capacity. This organization and its very wise leaders sent me a letter shortly after my confirmation that identified some significant shortcomings in the nature of our economic analysis. I want you to know that I take the concerns you raised to heart, and we are responding to them. For many years, the Commission has brought principally a legal analysis to issues of market structure. I have nothing against lawyers, of course, although I wouldn't want either of my daughters to marry one! But, I do believe that we need to evidence greater reliance on state-of-the-art economic analysis. Over the next several months, it is my hope that we will appoint a highly respected economist to lead our agency in its economic analysis, and help us beef up our economic capacity.

In the same vein, I believe that we need to create a new position of Chief Technology Officer. As more and more markets reflect wholly electronic communications and interaction, for example, the Commission is in desperate need of the expertise to understand, inspect and review foundational algorithms. You and I both know how far the Commission needs to travel to reach that point of minimal technological competence.

Finally, I believe that our system of self-regulation has served us particularly well, and I would like us to empower SRO's to a greater extent to assist us in our regulatory mission.

This is my overarching philosophy to market structure, and I hope you will agree that it provides a framework in which it is possible, indeed likely, that we will be able to intelligently tackle all of the challenges that we face.

Over the last two months, we found we could work together to help heal the wounds of September 11th suffered by the securities industry, our markets, the American people and our Nation. Healing is a powerful, holistic, and cathartic process, and one we must continue together. This includes strengthening our own relationship. Hippocrates, the Greek physician and author, wrote, "Healing is a matter of time but it is sometimes a matter of opportunity." Faced together with this crisis, we have found an opportunity. We look forward to our joint mission and tasks, operating as partners in protecting the public interest, and promoting our capital markets as the finest and fairest in the world.

Thank you.

<http://www.sec.gov/news/speech/spch521.htm>

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